Amendment   Docket No. 5000-1-515
Serial No. 10/759,720

IN THE CLAIMS:

Please amend the claims of record as follows:

1. (Currently amended) An MPTS-SPTS (Multiple Program Transport Stream - Single Program Transport Stream) separation device in a digital broadcasting system, comprising:

a receiving interface for receiving an MPEG-2 MPTS (Multiple-Program Transport Stream) combining a plurality of programs, provided from a digital broadcast program provider;

an MPTS-SPTS separator for:

a) detecting a PAT (Program Association Table) packet from MPEG-2 MPTS data provided from the receiving interface,

b) analyzing PIDs (Program IDs) of a PMT (Program Map Table) that correspond respectively to a plurality of programs existing in an MPEG-2 MPTS packet,

c) receiving information of a single program selected by a user via a Universal Asynchronous Receiver/Transmitter coupled to a PAT Extractor/Parser,

d) removing packets associated with all programs other than the selected program,

e) changing [[a]] the PAT by deleting PIDs associated with said other programs from the PAT, while retaining PIDs of [[a]] the PMT that are associated with the selected program, and

f) inserting the changed PAT into a stream corresponding to the selected single program; and

a transmitting interface for transmitting an SPTS outputted from the MPTS-SPTS separator, wherein said selected single program is transmitted as Digital Video Broadcasting-Asynchronous Serial Interface (DVB-ASI) data.

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2. (Original) The MPTS-SPTS separation device as set forth in claim 1, wherein the MPTS-SPTS separator includes:

a PAT extractor/parser for detecting a PAT packet in the MPEG-2 MPTS data provided from the receiving interface;

a PMT extractor/parser for analyzing PIDs (Program ID) of a PMT that correspond respectively to a plurality of programs existing in an MPEG-2 packet;

a PMT filter/selector for receiving information of a single program selected by a user;

a packet terminator for removing packets associated with all programs other than the selected program; and

a PAT inserter for changing the PAT by deleting PIDs associated with said other programs from the PAT, while retaining said PIDs of a PMT that are associated with the selected program, and inserting the changed PAT into a stream corresponding to the selected single program.

3. (Original) The MPTS-SPTS separation device as set forth in claim 2, wherein the MPTS-SPTS separator is implemented with an FPGA (Field Programmable Gate Array).

4. (Original) The MPTS-SPTS separation device as set forth in claim 2, wherein the packets removed are video, audio or data packets.

5. (Original) The MPTS-SPTS separation device as set forth in claim 2, said device being part of a CATV (cable television) broadcast station that receives at least one of VOD (video on demand), aerial and satellite broadcasts.

6. (Original) The MPTS-SPTS separation device as set forth in claim 2, said device being part of an Optical Line Termination (OLT) that receives at least one of

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VOD (video on demand), aerial and satellite broadcasts.

7. (Original) The MPTS-SPTS separation device as set forth in claim 2, wherein the PAT extractor/parser refers to a PID (Packet Identification) in an overhead section of the MPTS packet, so as to identify whether the MPTS packet is a PAT packet.

8. (Original) The MPTS-SPTS separation device as set forth in claim 2, further comprising a user interface for receiving and displaying an analysis result of the MPEG-2 MPTS packet from the PAT extractor/parser, and, when receiving information of said single program, providing the information to the PMT filter/selector.

9. (Original) The MPTS-SPTS separation device as set forth in claim 8, wherein the MPTS-SPTS separator is implemented with an FPGA (Field Programmable Gate Array).

10. (Original) The MPTS-SPTS separation device as set forth in claim 8, wherein the packets removed are video, audio or data packets.

11. (Original) The MPTS-SPTS separation device as set forth in claim 8, said device being part of a CATV (cable television) broadcast station that receives at least one of VOD (video on demand), aerial and satellite broadcasts.

12. (Original) The MPTS-SPTS separation device as set forth in claim 8, said device being part of an Optical Line Termination (OLT) that receives at least one of VOD (video on demand), aerial and satellite broadcasts.

13. (Original) The MPTS-SPTS separation device as set forth in claim 8, wherein the user interface includes any one of an LCD (Liquid Crystal Display) and a CRT

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monitor of a general computer.

14. (Original) The MPTS-SPTS separation device as set forth in claim 1, wherein the MPTS-SPTS separator is implemented with an integrated circuit.

15. (Original) The MPTS-SPTS separation device as set forth in claim 14, wherein the MPTS-SPTS separator is implemented with an FPGA (Field Programmable Gate Array).

16. (Original) The MPTS-SPTS separation device as set forth in claim 1, wherein the MPTS-SPTS separation device is installed in a cable TV broadcast station of a wired cable system.

17. (Original) The MPTS-SPTS separation device as set forth in claim 1, wherein the MPTS-SPTS separation device is installed in an OLT (Optical Line Termination) of an AON (Active Optical Network).

18. (Original) The MPTS-SPTS separation device as set forth in claim 1, wherein the packets removed are video, audio or data packets.

19. (Original) The MPTS-SPTS separation device as set forth in claim 1, said device being part of a CATV (cable television) broadcast station that receives at least one of VOD (video on demand), aerial and satellite broadcasts.

20. (Original) The MPTS-SPTS separation device as set forth in claim 1, said device being part of an Optical Line Termination (OLT) that receives at least one of VOD (video on demand), aerial and satellite broadcasts.

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